

48. The system of Claim 46 wherein the step of comparing comprises a step of calculating a SNPmetric for each SNP and each gene according to:

$$^{gene} \Gamma_{SNP} = \frac{|(E_{wt}^{avg} - E_{e/o}^{avg})|^c}{\sigma_{wt}^a \sigma_{e/o}^b}$$

wherein:  $^{gene} \Gamma_{SNP}$  = SNPmetric for a given gene;  
 $E_{wt}^{avg}$  = average gene expression for wild type SNP for the gene;  
 $E_{e/o}^{avg}$  = average gene expression for heterozygous/homozygous mutant for the gene;  
 $\sigma_{wt}$  = standard deviation of gene expression of wild type SNP for the gene;  
 $\sigma_{e/o}$  = standard deviation of gene expression of heterozygous/homozygous mutant for the gene; and  
 $a, b, c$  = sensitivity parameters.

## REMARKS

A Petition for a one-month Extension of Time is submitted with this response. However, if there are any other fees due in connection with the filing of this submission, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

Respectfully submitted,

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